

Abstract

A gas spring suspension system that adjusts the spring rate as the travel is adjusted. The suspension system includes a frame, a pressure chamber, a compression piston assembly, an adjustment assembly, a piston tube, and a probe. The piston tube is operatively connected to the adjustment assembly and the compression piston assembly, and the compression piston assembly is configured to slidably displace along the piston tube to change the pressure in the pressure chamber. The adjustment assembly is associated with the frame and is operable to axially position the piston tube and, in turn the compression piston assembly, relative to the frame to adjust the travel of the suspension system. The probe is configured to be variably positionable within the pressure chamber in response to axial displacement of the piston tube and the compression piston assembly by the adjustment assembly, the variable positioning of the probe within the pressure chamber changing the pressure therein.